

July 2, 1943.

Dr. Michael Doudoroff,  
Dept. Bacteriology,  
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Berkeley 4, California.

Dear Mike,

This is the answer to your letter of April 6 (for failing to answer which you reprimanded me at Minneapolis.)

1. Fermentation tests were conducted a) with growing cultures and b) with resting cells grown in the presence of homologous and heterologous substrates. As I explained, I was able to test only gross acid production.

2. Fermentative tests and utilization tests (growth on the substrate as sole Carbon source) have been done in every case, and in every case have given the same result.

testing

3. I still haven't gotten around to ~~making~~ extracts from the mutants on synthetic galactosides. One of Link's students, Martin Seidman, has just finished preparing some O-nitrophenyl galactoside, and this is working very nicely as a chromogenic substrate. I'm in the midst of moving my lab now, and it may be some time before I can get back to the enzyme work.

4. Now a question. Have you had a chance yet to look at that "maltose-positive, glucose-negative mutant"? Although that sort of mutant does suggest direct utilization, at least by that particular genetic type, I still feel rather sure that the coli strains I've been using first split lactose. Growing wild type cells on lactose is necessary before they show any activity on nitrophenyl galactoside, (presumably other galactosides would do as well, but I don't have enough of them to spare for these early experiments.)

Have you ever heard of violanose? Do you have any idea who might have some?

Give Stanier my best regards,

Sincerely,

Joshua Lederberg.